

NASA WV SPACE GRANT CONSORITUM NEWSLETTER FALL & WINTER 2023 EDITION

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Eclipse Ballooning Project

The Nationwide Eclipse Ballooning project, spearheaded by the Montana Space Grant Consortium, is a testament to collaborative scientific exploration. With over 70 teams dispersed nationwide, the project has become a platform for innovation and discovery during the celestial phenomena of the October 2023 (Annular) and April 2024(Total) eclipses. The West Virginia Balloon Engineering for Atmospheric Research (WV BEAR) team shines brightly among these teams. Comprised of dedicated students from West Virginia University, Glenville State University, and Trinity Christian School, this dynamic team is mentored by WVSGC Assist Director Candy Cordwell and under the guidance of NASA Goddard engineer Marcus Fisher. The team works together to design and construct various scientific instruments to soar into the stratosphere tethered to balloons, capturing data during these rare cosmic events. Beyond these endeavors, the WV BEAR team has embraced a role as a science ambassador, leading statewide outreach initiatives for K-12 students and adults. Their journey took them to Odessa, Texas, where they were able to witness the "ring of fire" and executed a successful launch during the annular eclipse in October 2023. As they gear up for another launch from Erie, PA, in April 2024, the WV BEAR team envisions a lasting impact, potentially sparking a new interest in and commitment to scientific ballooning in West Virginia. The team owes much of its success to NASA WVSGC. Their involvement was instrumental, without which they would not have been successful.

Team Member Testimonials:

"This project has been life-changing for me. I have been given so many new opportunities and built nationwide connections with like-minded peers and STEM professionals. My confidence and leadership skills have grown tremendously, and I am so grateful to be a part of this wonderful group of people. I also had the opportunity to teach many students throughout the state about eclipses and stratospheric ballooning. This project would not be possible without the support of NASA WVSGC." Natalie Fout, Math Education Undergraduate Student,



Glenville State University



14 October 2023 at WV Bear launch site Odessa,TX (31.5350 N,102.1974 W)



"Engaging in this project enabled me to strategize, collaborate seamlessly within a team, and think quickly to address both expected and unforeseen challenges for the success of the project." Hasith Perera, Engineering Graduate Student, West Virginia University







NASA Day!

STUDENT SPOTLIGHT

Hello, my name is Julia Barnes, and I am a NASA grant recipient for 2023. With this fellowship, I was able to analyze adulterants and undeclared drugs in over-the-counter weight loss supplements. This research has taught me to use different instruments that I will use in my future career as well as to analyze the data from them. The grant also allowed me to attend ABRCMS (Annual Biomedical Research Conference for Minoritized Scientists) in Phoenix, Arizona. This conference allowed me to present a poster to several judges, meet universities from around the country, and listen to incredible scientists from around the world. While I was there, I met wonderful women in STEM who I could see myself working with in the future. At the conference, I received a chemistry award for my poster presentation and networked with different graduate programs including NYU giving the possibility to receive a future scholarship. I will forever be grateful for this experience, and I wouldn't have been able to go without NASA. - Julia Barnes, Marshall University

On November 28th NASA Day was held at & hosted by the Clay Center in Charleston WV, where we welcomed 430 students from many different schools across WV! Students were able to participate in hands-on STEM workshops, visit the Caperton Planetarium & Theater, and learn about the Artemis Missions in a live presentation! Opening ceremonies included hearing from the WV Space Grant Consortium Director- Dr.Melanie Page, Clay Center Director of Educational & Visitor Experience- Zack Merritt, and our Keynote Speaker from NASA's Science Activation: Program Specialist- Mr. Clarence Bostic. The day wouldn't have been possible without the help from our partners: CASTEM, Marshall Advanced Manufacturing Center, National Youth Academy, WV Robotics Alliance, South Charleston Public Library, SPOT, WVU Experimental Rocketry, Seeding Your Future & our many student volunteers! The event was truly out of this world and we look forward to launching again next year.







NCWV 2nd Annual Girls in Aviation Day!

I am beyond pleased to have gotten a chance to be a part of the 9th Annual Girls in Aviation Day, organized by Women in Aviation International on September 23, 2023. The event focused on sparking young girls' interest in STEM with enlightening discussions about research, science, and the exciting possibilities within these fields. Engaging with such an authentic and enthusiastic group of girls of all ages, grades and knowledge levels was terrific. Throughout the day, discussions centered on the exciting realms of STEM, shedding light on research, science, the myriad possibilities within these fields and most importantly, the fun you can have doing science!

The day's primary goal was to inspire and empower these young minds, emphasizing the cool and rewarding aspects of pursuing STEM disciplines. I felt honored to represent the NASA WVU Space Grant Consortium by showcasing a real-life example of a woman working in STEM. I hope I served as an inspiration to help encourage and show girls they can reach their goals. The excitement from the children in attendance demonstrated the positive impact of this event. It was amazing to be a part of an environment that fosters a love for knowledge and curiosity in the next generation of pioneering women in STEM. I would also like to thank the hard work of Bryan Rodriguez for helping me with this collaboration and making this event a success.



- "By Kourtney Kotvas, PhD candidate, Eberly College of Arts and Sciences, Psychology Department.



The 10th annual Seeding Your Future Conference (SYFC) took place on Saturday October 28th at Shepherd University. The conference is a one-day, hands-on event that primarily aims to inspire middle school-aged girls to pursue careers in science, technology, engineering, and mathematics when they become older. With a vast array of workshops and activities, the participants were exposed to many scientific fields at Shepherd University & heard from this year's keynote speaker, Dr. Melanie Page: Director, West Virginia Space Grant Consortium.

Seeding Your Future Conference









2023 WV FLL State Championship



46 LEGO robotics teams were welcomed to Fairmont State University's campus on December 2nd for the FIRST LEGO League (FLL) State Championship. Teams that are made up of participants ages 9-14 who come from across the state to showcase their research and robotics design skills. The FLL is the longest-running robotics competition in the state of West Virginia, and the championship has been hosted by Fairmont State for over a decade. FLL is managed by For Inspiration and Recognition of Science and Technology, or FIRST, and has teams participating in over 100 countries worldwide. Additionally, the local NASA IV&V Education Resource Center assists with managing the entire event on Fairmont State's campus.

Student Testimonials



"The WVSGC fellowship has given me the opportunity to exercise my abilities as an independent researcher. With the support I've received I have taught myself to use new simulation tools and was able to explore a new area of research in simulation and modeling for my PhD."

-Nathaniel Pearson, West Virginia University



"Having the opportunity to participate in these fellowship programs has allowed me to have more freedom in my research. I can make connections and discover, through my own hands, the lecture material. It has also allowed me to explore my love for research, which has pushed me to pursue a PhD in microbiology next school year. Thanks to the Space Grant, I know that research is a respected and worthwhile career that is attainable, even for students from small schools."

- Madelyn Logan, West Liberty University

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Opportunities

When is the 2024 solar eclipse?

The total solar eclipse will happen on Monday, April 8, 2024 Order your Eclipse Viewing glasses <u>HERE</u>!



WV Science Bowl 2024

The WV Science Bowl Returns to In-person Competition at West Virginia University. After three years, the WV Science Bowl is back and will take place on February 2nd and 3rd at West Virginia University. The U.S. Department of Energy National Science Bowl® is an exciting nationwide competition that aims to promote STEM education. Teams of middle and high school students participate in a fast-paced quiz bowl format to answer questions on a variety of topics, including biology, Earth science, physics, energy, math, and engineering. If you're interested in volunteering, click on the link provided! <u>Here</u>

Funding Available

WVSGC is pleased to provide support to Higher Education student organizations at WVSGC colleges and universities for STEM outreach activities and design competitions. This opportunity is ongoing with no application deadlines, and we will accept proposals on a rolling basis. Student organizations may request up to \$2,000 in NASA funds to be matched 1:1 from non-federal resources. Access the application <u>HERE</u>. The availability

of funding would run though May 15th, 2024. For questions please email:kristina.angeline@mail.wvu.edu

> SAVE THE DATE! Spring BOD Meeting April 18th-19th -WVU



Share your story!

We would love to highlight your story in our next newsletter! Please send your ideas to kristina.angeline@mail.wvu.edu

THANK YOU!

NASA WV Space Grant Team

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